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ABSTRACT

Research indicates that when taking a standardized test that is not timed, students who have been coached to revise answers profit more from their changes than do those who receive no instruction at all. Some study skill books written for high school and college students give misleading advice not to change answers while some newer editions are giving a more accurate view of research in stating that revising answers will probably increase the student's score. Some tests, however, make no reference at all to changing answers as part of testwiseness. The popular belief that the first answer is more likely to be correct can lower the scores of teacher candidates' tests, as well as the scores of their future students. Teacher educators need to report research findings on test taking and to encourage teacher candidates to share this information with their future students. (HTH)

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ANSWER CHANGING BEHAVIOR ON OBJECTIVE TESTS: WHAT IS OUR RESPONSIBILITY?

Patricia Wilson

For the last forty years, evidence has been accumulating that is it wise to revise answers on objective tests. Working through a test once and then revising answers will more often raise a student's score than lower the score. What do we as teacher educators need to pass on to our preservice and in-service teachers about this area of testwiseness?

What Does Research Say About Answer Changing?

First, it is to the advantage of the test taker to change answers after giving more thought to the question (Lowe and Crawford, 1929; Jacobs, 1971). When revision is called for as a part of the test directions, as many as 10% of the answers will be revised (Lowe and Crawford, 1929). In no study was it found that first responses are the best responses (Jarrett, 1947). When revision was not called for from one to thirty precent of the answers were revised. A little less than 60% of the answers changed yielded correct responses (Hull, 1937). But when revision is called for as part of test directions, there is a three to one chance that the revision will yield a correct response (Bath, 1967). Thus, when no direction is given to revise, students are still improving their scores by revising, but the improvement of individual scores is not so dramatic (Hull, 1937).

On a true-false test, a true response changed to false is more often correct than a false to true change (Lamson, 1935; Hull, 1937). When a penalty for guessing is imposed (subtract number of wrong answers from number correct), revisions on true-false tests still tend to raise scores (Hull, 1937).

Males do a slightly better job of revising answers than females (Reile and Briggs, 1952; Pascale, 1974).

Some studies reported students who score high profit more often from answer changing than students who score low (Matthews, 1929; Reile and Briggs, 1952; Reiling and Taylor, 1972). Additionally, difficult items are changed with greater frequency (Reiling

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and Taylor, 1972; Pascale, 1974), but the items ranked as moderately difficult are more often changed to correct responses. If a student is scoring in the high knowledge range on a comprehensive final examination, s/he will more likely profit from revising answers than others taking the test (Reiling and Taylor, 1972).

Because one has a higher grade point average or because one scores in the higher range on vocabulary tests, one is not assured that his answer changing will be superior to others (Jacobs, 1971; Pascale, 1974).

When taking a standardized test which is not timed, students who have been coached to revise answers profit more from their answer changing than those who have received no instructions to revise, but it is profitable to revise answers on a standardized test for all (Smith and Moore, 1976).

Although no study to date has collected data on answer changing behavior of students who are younger than college age, studies by some have indicated a positive effect for instruction in test-wiseness (Oakland, 1972; Jongsma and Warshauer, 1975).

What do Students Believe and What Have They Been Told About Changing Answers?

Well over half of the college students surveyed responded that changing answers will lower their test scores (Matthews, 1929; Lynch and Smith, 1970). Some investigators surmise that students tend to remember more vividly the items which they had changed and missed than those items changed correctly (Juola, 1968). In addition to the set majority opinion, students do not predict their own answer-changing behavior correctly in experimental settings (Jacobs, 1970).

Study skills books which are written for high school and college students give a mixed message. While some texts give a fairly accurate picture of the research, others give misleading advice. Two examples of such incorrect advice are The Now Student which states, "Do not change answers," and Study Tips by William Armstrong. The Morgan and Deese How to Study (1969) now gives correct advice, "...quite all right to change the answer, and in doing so you probably will increase your score" (p. 79). The earlier edition of this book gave advice to leave first answers unchanged. How to Take Tests by Millman and Pauk includes only one paragraph on the subject of answer changing. There is no advice given in the chapter on objective test taking.

Further, the Millman, Bishop, Ebel taxonomy of testwiseness (Sarnacki, 1979) does not list answer changing behavior as a part of testwiseness. Thus, in a recent article reviewing testwiseness, the author has no reference to the effects of answer changing on student performance (Sarnacki, 1979).

Finally, there have been no articles in the more popular teacher magazines on the subject of answer changing. With the emphasis in fusing reading instruction in the content areas, teacher candidates will increasingly need to become aware of the research in this area.

The popularity of the belief that changing answers lowers scores, the lack of coverage of the research in some texts and some taxonomies, and the absence of journal articles has some very predictable effects. First of all, for the teacher candidates themselves, the validity and reliability of the tests they take may be lowered. Secondly, they may stand a likelihood of being led astray by inaccurate or incomplete information. Additionally, they will probably not pass on to their students the correct information. And lastly, for their future students who are involved in highly competitive testing situations, test scores below their capacity may cause them to be excluded from a career or position of their choice (Smith and Lynch, 1971).

We need, then, to report findings to our students in order to aid them in their own test taking and to encourage them to share this informatin with their own students.

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